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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,979

04/19/2006

Shinichi Hirato

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EXAMINER

KIANNI, KAVEH C

ART UNIT

PAPER NUMBER

2883

MAIL DATE

DELIVERY MODE

04/16/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/561,979	Applicant(s) HIRATO ET AL.	
	Examiner Kianni C. Kaveh	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 4 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/12/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- Note, that the examiner after further review withdraws the restriction requirement.

Allowable Subject Matter

Claims 4 and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 and 9 are allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious a transparent electrode layer is formed between the first layer and the second layer in combination with the rest of the limitations of the base claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimi et al. (JP 08-254682).

Yoshimi teaches a liquid crystal display device with liquid crystal held between a pair of substrates and spacers for keeping a gap between the substrates of the pair

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provided between the substrates (shown I at least fig., 5-8), wherein each of the spacers includes a first layer 35 laminated over one of the substrates 6 and a second layer 35 disposed over the first layer 35 to cross the first layer in a plan view (shown in fig. 9, items 35).

Yoshimi teaches a method of manufacturing a liquid crystal display device with spacers for keeping a gap provided between a pair of substrates and liquid crystal held between the substrates (shown I at least fig., 5-8), wherein formation of the spacers includes the steps of: providing a first layer laminated over one of the substrates; and providing a second layer disposed over the first layer to cross the first layer in a plan view (see at least fig. 9 and 0023).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the

examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2, 3, 5, 7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over combination of Yoshimi et al (JP 08-254682) and Ike et al. (JP 11-002808).

Regarding claims 2, 3, 5, 7, 8 and 10, Yoshimi as stated above, teaches all limitations of the base claim these claims depend on. However, Yoshimi does not explicitly state (A) wherein at least one of the layers constituting the spacers is a resin layer and (B) wherein a color filter layer is provided between the substrates of the pair, and at least one of the layers constituting the spacers is formed when forming the color filter layer and wherein both of the first layer and second layer are formed by exposure and development, (C) and a length of one of portions extending off an overlap between the first layer and the second layer is set to be equal to or greater than the sum of exposure accuracies and development accuracies of the respective layers. Ike et al. teaches a liquid crystal display that includes the above limitations A and B (see figures 1 and 2, at least parag. 0026 and resin spacer 7/8). Thus, Ike et al. provides a process for making precision liquid crystal display apparatus through aligned spacers that are simple and inexpensive approach/steps (see 1112-0013). However, the combination is silent about the above limitation C. Nevertheless, it would have been obvious to a person of ordinary skill in the art when the invention was made to make the length portion(s) extending the overlap between the layers to be equal or greater than all sum of the

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exposure/developmental accuracies since the exposure parameters such as accuracies/apertures/dispersion-noise are known and thus making the above length to be in a comfortable range as to prevent inaccuracies in exposures would have been obvious to those of ordinary skill in the art. And, thus it would have been obvious to a person of ordinary skill in the art when the invention was made to combine the compatible teachings of Yoshimi and that of Ike in order to provide a LCD apparatus that includes the above limitations since such combination would

Citation of Relevant Prior Art

Prior art made of record and not relied upon is considered pertinent to applicant's disclosure. In accordance with MPEP 707.05 the following references are pertinent in rejection of this application since they provide substantially the same information disclosure as this patent does. These references are:

JP 2968987 B2
JP 8-254682 A
JP 9-258230 A
JP 11-2808 A
JP 2002-162632 A
JP 2003-66461A
JP 09120074 A
US 6275280 B1
US 20050280755 A1
US 20020196393 A1
JP 11352322 A
US 20020135720 A1
US 7230662 B2
US 20070026324 A1

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These references are cited herein to show the relevance of the apparatus/methods taught within these references as prior art.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kianni C. Kaveh whose telephone number is 571-272-2417. The examiner can normally be reached on 9:30-19:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Kianni C Kaveh/

Primary Examiner, Art Unit 2883

April 9, 2008